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Topic

**Is Patent Protection an Incentive
for Innovation?**

**Literature and Case Study of the Tunisian
Pharmaceutical Industry**

Motivations

1- Why this topic ?



Controversies about the effects of patents on Innovation

2- Why Pharmaceuticals ?



Patentability of pharmaceuticals

3- Why Tunisia ?



Pharmaceutical patents since January 2005
Emphasis on the production of generics

Main Question

**What Impacts Would Patents
have on the Pharmaceutical
Innovation in Tunisia ?**

Axes of the Presentation

1. The pharmaceutical industry in Tunisia, the focus on the production of generics
2. Advantages and limits of a pharmaceutical industry based on the production of generics
3. The role of patent protection in promoting the pharmaceutical innovation in Tunisia

Definition

Generics

- Copies of the brand-name drug whose patent expired (20 years)
- WHO: Tight control => generics have the same quality as the brand-name drugs
- Much less expensive <= they are free from expenditures in R&D

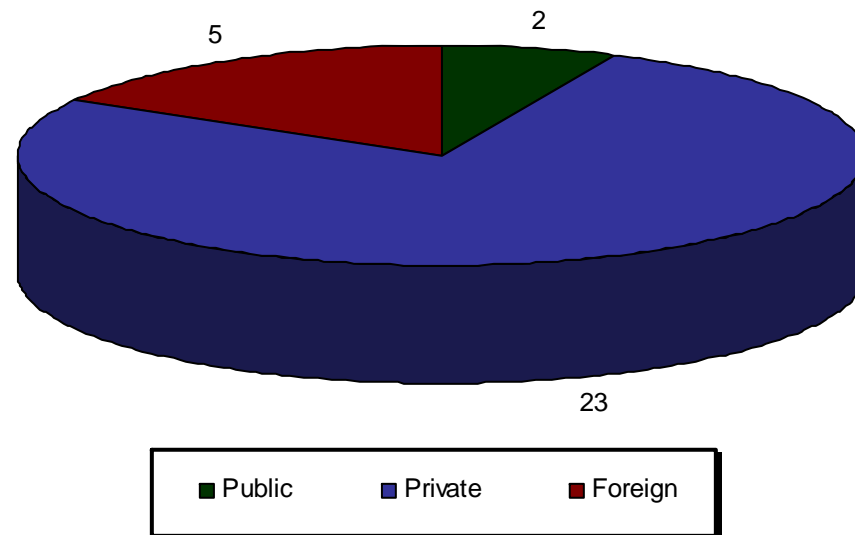
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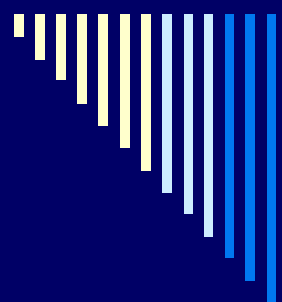
Characteristics of the Tunisian Pharmaceutical Industry

30 pharmaceutical firms

Pharmaceutical Laboratories in Tunisia

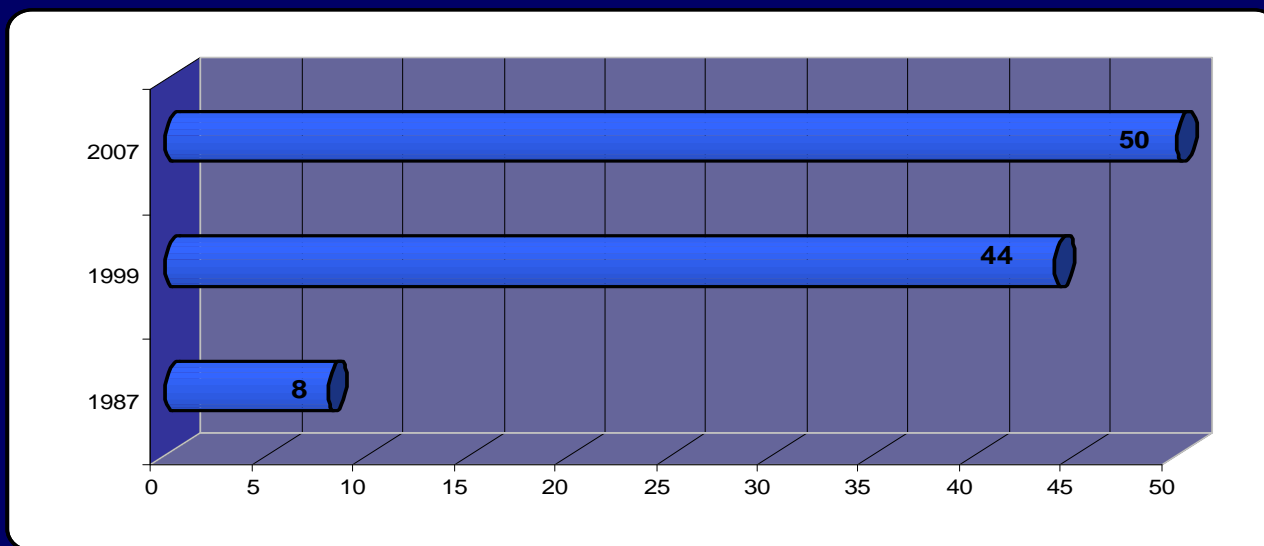


Ministry of Public Health, 2008



The Pharmaceutical Industry in Tunisia

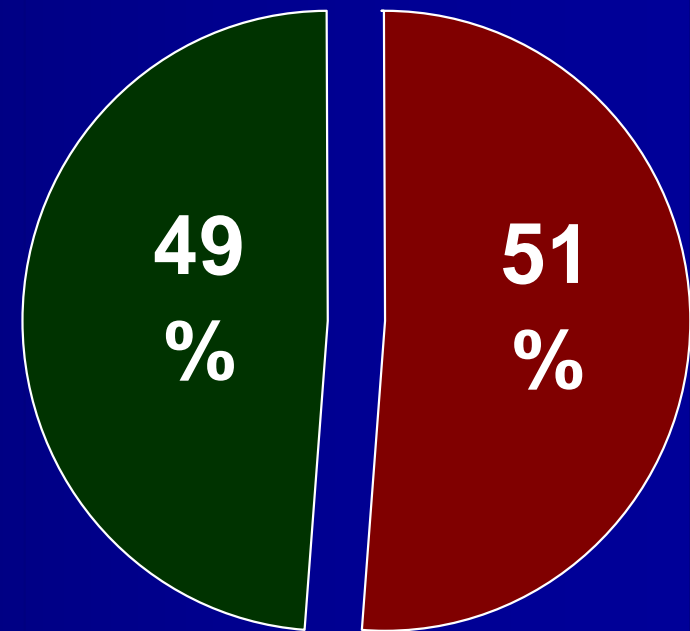
Local production: 50% in 2007 (8% in 1987)



Ministry of Public Health, 2008

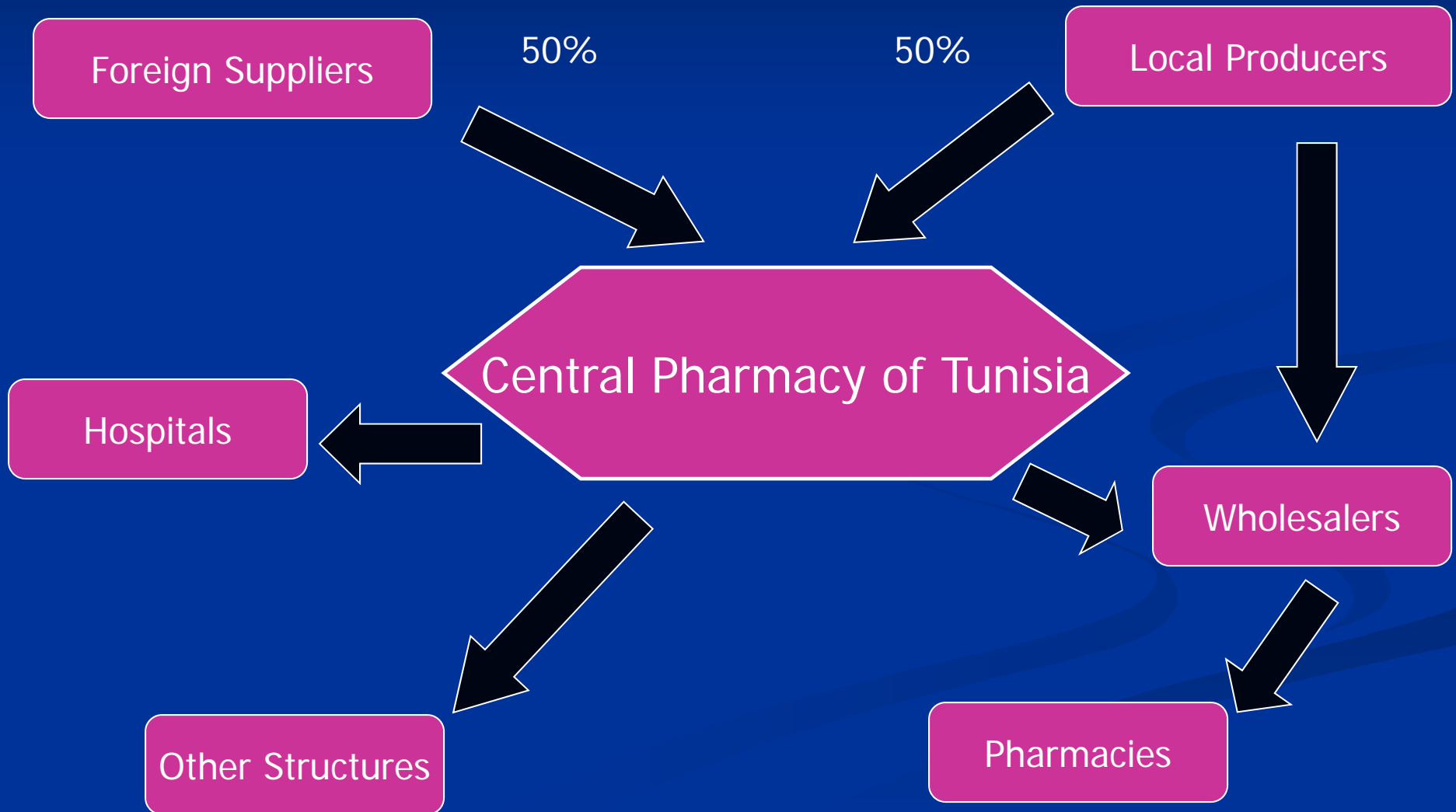
The Local Production

- 49% licensed drugs
- 51% generics
- Exports: 5 to 7% of generics



■ Generics ■ Licenses

The Distribution Network of Pharmaceuticals in Tunisia



The Government's Objectives

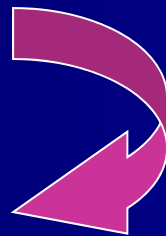
Increase the share of the local production



Improve the production of generics

Encouraging Measures for Generics

After the last reform of the social security system (2007), the National Fund of Health Insurance reimburses patients on the basis of the least expensive therapeutic equivalent

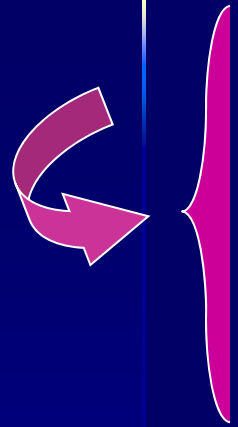


Enhance the market demand for generics

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Benefits in terms of Costs



Control drugs' prices

Reduce health expenditures

Accessible drugs to lower-income patients

- Local production of generics contributes at saving currency
(very important goal for Tunisia after the continuous appreciation of the Euro against the Dinar)

Benefits for the Local Industry

- 
- Consolidate the local industrial tissue
 - Reduce unemployment
 - Increase exports => ameliorate the trade balance
 - Attract multinational firms and benefit from FDI in terms of technological transfer, employment, ...
 - Generics producers preserve their independency

Limits

- Local firms are also dependent to foreign laboratories (just copies)
- Local firms submit to a period of “inertia” equal to the patent life of the brand name drug → bad effects when dealing with dangerous diseases
- Spread a sort of “passiveness” instead of enhancing the sense of creativeness and inventiveness

What Role do Patents Play ?

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An Encouraging Legal Framework

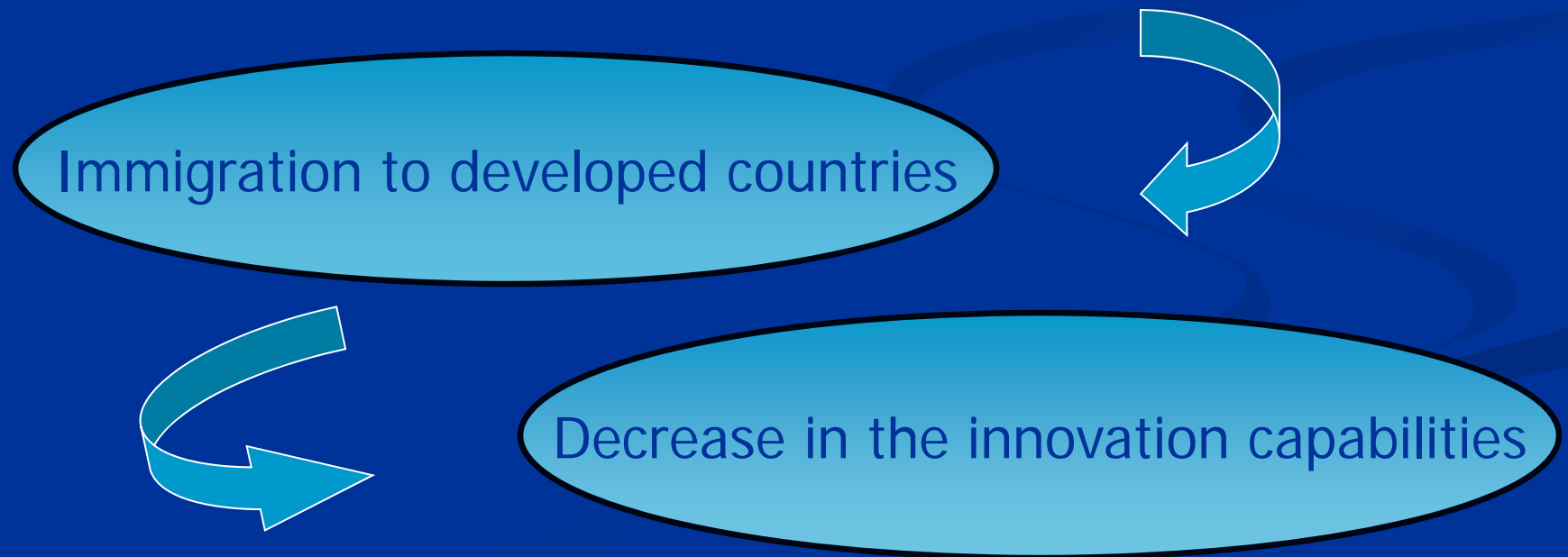
- Research units : 260 in 2005, 23% of them are laboratories of medical studies
- Exchanging program with foreign researchers in prior and strategic fields (energy, biotechnologies and health)

Human Resources

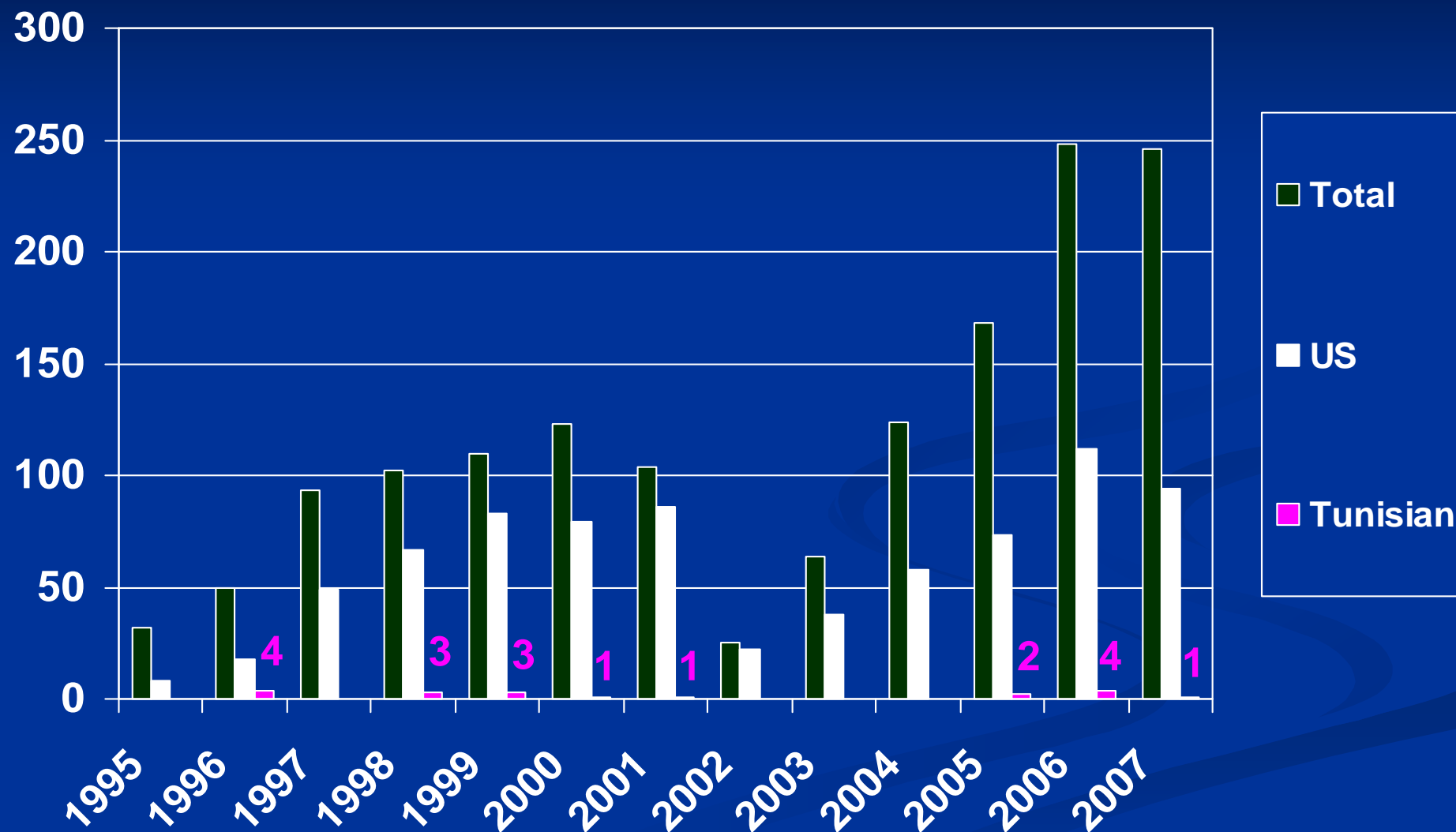
- School enrollment in higher education: 29% (2005) (12,2% Morocco, 15% Algeria)
- 0,44% pharmacy students
- Few number of Tunisian pharmacy students carry out pharmaceutical researches in Tunisia
 - ➡ Immigration to developed countries (Europe)

Financial Resources

- 600 million€, 2006 → whole pharmaceutical sector
- Pharmaceutical R&D requires huge funds
- Special raw materials : very expensive + sometimes non available for some developing countries



Innovation Output Indicator Pharmaceutical Patent Grants in Tunisia (50%)



National Institute of Standardization and Industrial Property (INNORPI, 2008)

Pharmaceutical Patents

In the
short-term

- Increase prices of patented drugs
- Limit access of lower-income people to patented drugs
- Encourage the production of generics
- Promote exports of generics
- Attract FDI + employment

"Might"

In the
long-term

Technological transfer =>
access to new technologies

- Promote local innovation spirit
- Improve local innovation Capabilities
- Encourage pharmaceutical Innovation

To Conclude ...

- In pharmacy education, put a more emphasis on applied researches
- Reduce bureaucracy and complicated administrative procedures → facilitate access to information
- Alternative sources of financing (Cooperation with foreign firms + privatization)
- Keep encouraging the production of generics → in order to assure the access of all patients to essential drugs + Combine the short term effects of generics with the long term effects of patents.



When shall
I start the
treatment
Doc?



Have to
wait until
the patent
expires



Tānan



Chokrane



Merci



Spacibo



Gracias



Kiitos



Obrigado



Thank You For Your Attention ...

Efharisto



Tak



XièXie



Dhanyavad



Motashakkeram



Köszönöm



Multumesc



Terima Kasih



Tesekkur

